FOURTH ANNUAL REPORT

OF

DR. GEORGE BLAND,

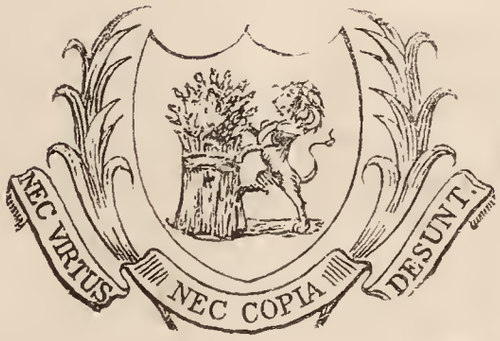
Medical Officer of Health,

FOR THE

BOROUGH OF MACCLESFIELD,

CONTAINING THE

VITAL STATISTICS FOR THE YEAR 1876.



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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE

BOROUGH OF MACCLESFIELD,

For the Year Ending December, 31, 1876.

Mr. Chairman and Gentlemen,

In presenting this, my fourth Annual Report, I may preface it by stating that it is my first Annual Report since the appointments of the Sanitary Officials in this Borough have been approved, and a portion of their salaries paid by the Central Authority.

In order to comply with a code of instructions issued at the close of the year by the Local Government Board to those Medical Officers of Health whose appointments they have sanctioned, I have found it necessary to slightly alter the form of my Report, to give more full information on certain points, and to add a new table classifying the deaths according to diseases, ages, and localities. I regret I am unable to furnish a tabular statement of sickness among the paupers and in the public medical institutions, but trust that as arrangements are now being made for supplying me with the requisite information, the omission will not occur in the next Annual Report.

Part I.

In 1876 Macclesfield suffered somewhat severely from two epidemics, and narrowly escaped a third.

The first was an epidemic of Measles, commencing in the first quarter of the year, and reaching its climax in the early portion of the second quarter. The outbreak was of an unusually severe type, complicated in many cases with Whooping Cough, and rendered more fatal by the cold weather. It cut short 85 lives, and it is calculated that upwards of eight hundred children sickened with this disease. It was most prevalent in East Macclesfield, and in the hamlet of Broken Cross in West Macclesfield, where the National School was closed for a short time on account of the epidemic. In my Report to the Board at the time I stated that I had reason to believe that the epidemic was spread and the number of deaths increased (1) by the ignorance of mothers, many of whom erroneously think that every child must have measles in the same way that each child must pass through dentition, and therefore carelessly, or even wilfully expose their children to the contagion; and (2) by the apathy of those parents who neglect seeking medical advice for their offspring when suffering from measles until inflammation of the lungs or other alarming symptoms have supervened.

The second epidemic was an outbreak of Scarlet Fever. The Borough has not been quite free from this disease since August, 1875, when it was severely epidemic in the Hurdsfield portion of the Borough. In the third quarter of 1875 five deaths were registered from Scarlet Fever; in the fourth quarter of the same year the number rose to twenty-three,—falling again to thirteen in the first quarter, and to four in the second quarter of 1876; again rising to twelve in the third quarter, and reaching its climax in thirty-six deaths during the last quarter of 1876. Unlike the epidemic of 1875, that of 1876 was not confined to any particular part of the Borough; it was general throughout the town; but was excessively rife in East Macclesfield, where twenty-five in each thousand inhabitants were attacked with Scarlet Fever, against fifteen in each thousand in West Macclesfield and Sutton, and fourteen in each thousand in Hurdsfield, where the disease had expended its strength in the previous year. Of the absolute necessity of isolation in cases of infectious disease, and of a Fever Hospital as the means of enforcing

isolation, I have written at length in previous reports. And I have also pointed out the great importance of disinfection,—not the mere sprinkling of a handful of chloride of lime in the sick chamber,—but of proper and efficient disinfection according to the rules laid down in the Appendix to my last Annual Report. Knowing the urgent necessity of early disinfection, I advised that the Sanitary Inspector be empowered and ordered to serve notices to disinfect under Section 120 of the Public Health Act of 1875, on the owner or occupier of any house the cleansing or disinfecting of which was certified by a medical practitioner as likely to prevent the spread of infectious disease. This, the Board of Health, on the recommendation of the Sanitary Committee, agreed to. In order to further make known a few simple sanitary precautions I compiled the following placard for posting in infected neighbourhoods :—

ADVICE

ON THE

Prevention and Management of Infectious Diseases,

SUCH AS

FEVER, SCARLET FEVER, SMALL POX, &C.

Ventilate your dwellings by opening windows at the top during some hours each day.

Drains, sinks, privies, &c., should be kept in good order, cleansed and regularly disinfected. No drain should be in direct communication with the inside of a house. All nuisances should be reported without delay to the Nuisance Inspector.

Thorough cleanliness is absolutely necessary. Allow no accumulations of decaying or refuse matter in the neighbourhood of houses. Much that is thrown out of houses might be advantageously disposed of by being thrown behind the fire.

Be temperate in eating and drinking.

WHEN THE DISEASE IS PRESENT :

Apply at once for medical assistance ; delay is dangerous.

The patient should be kept separate from the rest of the family.

The sick room should be well ventilated, and divested of all unnecessary drapery and furniture. All bed and body linen should, before removal from the room, be placed in water containing carbolic acid or chloride of lime.

All discharges from the patients should be received quickly into vessels containing a disinfectant, and not allowed to remain in the room.

The scales or dust which peel from a patient's skin being highly contagious,—anointing the whole body with oil is recommended, to prevent their dispersion.

After recovery, the sick room should be thoroughly cleansed and disinfected by fumigation with sulphur, lime washing and removal of the wall paper, the bedding must be carefully disinfected. Disinfectants will be supplied, and instructions in their use given, by the Nuisance Inspector on application.

Dead bodies, being centres of infection, should be buried early, and on no account be allowed to remain in rooms occupied by the living.

Keep all children of the family away from school until safety is certified by the medical attendant; a breach of this injunction is punishable by a penalty af £5.

All infected clothing must be washed at home; its transmission is very dangerous, and is a punishable offence.

N. B. The exposure in the public streets of persons suffering from an infectious disease; the use of public conveyances, such as cabs, by such persons, the letting of infected houses or rooms, or the exposure in any manner of any infected article, subject the offender to heavy penalties.

As a precaution against smallpox, in addition to the above, have your children vaccinated early, and after the age of seven or eight years, have them re-vaccinated.

Information of cases of Infectious or Contagious Disease, such as Scarlet Fever, Smallpox, Fever, &c., should be forwarded without delay to the Inspector of Nuisances, who attends at his Office at the Town Hall, daily from 9 to 11 a.m.

In addition to the epidemics of Measles and Scarlet Fever, the Borough narrowly escaped an epidemic of Smallpox. This disease was introduced into the town no less than five times, and there were altogether thirty-six cases

in the Borough, of which six proved fatal, distributed in the following streets :

District.	Street.	No. of Cases.	No. removed to Union Fever Hospital.	Died.
West Macclesfield.	Chestergate	3	1	
	Chester-road	1	1	1
	Prestbury-road	2		
	Bridge-street	2	1	
	Union-street	1		
	Paradise-street	3	1	1
	Crossall-street	1	1	
	Crompton-road	9	6	1
	Samuel-street	1	1	
	Elizabeth-street	2		
	Duke-street	1	1	
	Higginbotham-street	2	2	
East Macclesfield.	Churchwallgate	1	1	1
	Princess-street	1		
	Sunderland-street	1	1	
	Black-road	1	1	1
Sutton.	Byrons-lane	1		1
	Cross-street	1		
	Bridge-street	1		
	Peel-street	1		
	Total,	36	18	6

It will be noticed that only eighteen of the thirty-six cases of smallpox were treated and isolated in the Union Fever Wards; and it may be asked why were not the other eighteen infected persons removed for the purpose of isolation ? The principal reason was because the Sanitary Authority of the Borough has not at present provided a Fever Hospital, and the patients objected to being taken to a hospital connected with the poor law system.

It will also be noticed that the five imported cases increased to thirty-six. This increase was solely due to isolation of each infected case not having been carried out as soon as

the nature of the disease was known. I know of no contagious disease that can be so easily stamped out as Smallpox, for we have against it two most excellent preventatives—Vaccination of the non-infected, and Isolation of the infected. And, as I wrote in my Report for the second quarter, with two such certain weapons as these "it is a disgrace to any community to have Smallpox epidemic in their midst." It is impossible to say to what extent this dreadful malady might have spread had not the Board of Guardians kindly allowed the infected patients to be treated in the Workhouse Fever Wards.

What was the cost to the inhabitants of the town of these infectious disorders? The charge made by the Board of Guardians to the Local Board of Health for the maintenance, medical treatment, &c., of seventeen patients (one patient having been paid for by friends) was £88 6 5. To this must be added the cost of the other cases. Calculating (as in my Report for the previous year) that each case cost at least £1 10 0 for medical attendance, nursing, &c., and that the funeral expenses amounted to £5 for each death; the expense to the community will be as follows:—

Smallpox.

	£.	s.	d.	£	s.	d.	£	s.	d.
Amount charged by Board of Guardians:—									
Maintenance, &c., of seventeen patients, at 20s per week, and Funeral expenses of two patients	58	5	4						
Surgeon's fees	17	17	0						
Clothing replaced	12	4	1						
				88	6	5			
Nineteen cases of smallpox at £1 10s. 0d. each,				28	10	0			
Four funerals at £5 each				20	0	0			
							136	16	5

Scarlet Fever.

Sixty-five funerals at £5 each				325	0	0			
640 cases of scarlet fever at £1 10s. 0d. each,				960	0	0			
							1285	0	0

Measles.

Eighty-five funerals at £5 each				425	0	0			
800 cases of measles at £1 10s. 0d. each				1200	0	0	1625	0	0
Total cost of Infectious Diseases, 1876							£3046	16	5

This sum may be put down as the actual money loss to the town, but other expenses might reasonably be added, such as loss of wages.

In the portion of this Report devoted to Vital Statistics, I shall show the effect these epidemics had on the general death-rate of the Borough.

Infectious Diseases Hospital. The "stamping out" of that fatal disease to cattle, the Rinderpest, suggested to Sir James Y. Simpson the application of the same principle to the extirpation of infectious disorders. As the poleaxe is the leading measure required to blot out rinderpest, so isolation is the chief means employed to stamp out Smallpox, Scarlet Fever and other infectious diseases. Those affected with such disorders ought to be placed in strict quarantine until they have passed through the disorder and lost all power of communciating it to others. This can be effected without any extraordinary inconvenience, for, unlike the expulsion of the unclean leper from the camp under the Mosaic law, the necessary seclusion of an infected person is of comparatively short duration. Perhaps, years hence, when wars and rumours of wars are unknown, and when the governments of all civilized countries look upon the destruction of disease and the preservation of life as matters of primary importance, some attempt may be made, on a large scale, to stamp out all contagious disorders. But until this happy time arrives, it behoves the local authorities of every town to keep their borders clear of all such diseases; and this, as I have often pointed out, can only be done by isolating the initial cases of disease. Hence the paramount importance of having a Fever Hospital ready at any time to receive the first case of any infectious disease which may be imported into our midst. It was aptly remarked by Dr. D. Davies, at the Birmingham Health Conference in 1875, that to expect a Medical Officer of Health to keep a town free from Zymotic disease and not to provide proper Fever Hospital accommodation was "worse than Pharaoh's command to the Hebrews to make bricks without straw." *

Soon after my appointment as Medical Officer of Health, I saw the importance of having an Infectious Diseases Hospital, and in a Report, dated 20th of November, 1873, drew

* Sanitary Record, Vol. II., p. 55.

attention to the want of such accommodation in this town. The subject was again referred to in my Annual Report for 1874, and again, at greater length, in that for 1875. Early in 1876 the Macclesfield Rural Sanitary Authority suggested that all the Urban Sanitary Authorities in the Union should join with them in the erection of a joint Fever Hospital. The suggestion was not agreed to. On May 31st., Dr. Buchanan, of the Local Government Board, had an interview with the Local Board of Health, when he suggested that a Hospital for Infectious Diseases containing from 50 to 60 beds, should be built at the joint expense of the Board of Health and Rural Sanitary Authority. This amalgamation was proposed on two grounds: first, on the ground of economy, and secondly, because the interests of neighbouring sanitary authorities are identical; an epidemic cannot rage in the town without the country suffering, nor in the country without the town suffering. Delegates of the two Sanitary Authorities afterwards met in conference, but did not consent to the scheme of amalgamation; the Local Board of Health preferring to erect a Fever Hospital of their own.

A deputation of the Board of Health having inspected the Fever Hospitals at Coventry and Monsal near Manchester, recommended that "permanent brick wards should be provided for the separate treatment of typhoid or enteric fever and of scarlet fever, with a central administration block; and that a double-cased hut on brick foundations should also be erected for the treatment of smallpox cases." On October 25th the Sanitary Committee recommended the Council "to make application for a loan of £5000, in order that the loan may be available in the event of the Corporation deciding to erect Hospitals for Infectious Diseases." As soon as a site has been secured I understand that the Borough Surveyor, who has devoted considerable time and attention to the subject, will be prepared with a plan for an Infectious Diseases Hospital, embodying the views of the Deputation above referred to. It may, therefore, I think, be fairly expected that this Borough will shortly be provided with Fever Hospital accommodation, the want of which has been severely felt during the year.*

* I beg leave to append to this Report the Reports of the Deputation appointed to visit certain Fever Hospitals, Dr. Buchanan's Report on Infectious Hospital Provision required at Macclesfield, and a tabular statement giving the result of my enquiries as to the cost of Fever Hospital accommodation in various towns.

SANITARY SURVEY.

The basis of practical sanitary work is the house-to-house visitation of a district. This visitation, commenced in 1873, has been continued during the year, but was somewhat interrupted by the changes made in the Sanitary Staff. East and West Macclesfield, and Hurdsfield have been visited; the survey of Sutton is not at present completed.

I beg leave to append to this Report the Reports of the Deputation appointed to visit certain Fever Hospitals, Dr. Buchanan's Report on Infectious Hospital Provision required at Macclesfield, and a Tabular Statement giving the result of my enquiries as to the cost of Fever Hospital accommodation in various towns.

PIG KEEPING.

Nuisances arising from the keeping of swine and other animals in a filthy state, have been dealt with firmly and judiciously. By section 47 of the Public Health Act, 1875, any person who keeps swine so as to be a nuisance, is liable to a penalty of forty shillings, and a further penalty of five shillings for every day during which the offence is continued. Want of cleanliness in the pig cote and its surroundings is the most frequent cause of nuisance arising from pig keeping. In most of the styes the floors are of rough uneven bricks or boulders, and it is almost impossible to keep them dry and clean. Asphalt made with gravel, sand, and the pitch of gas-tar might, with advavantage, be used for the floors, which should be made to slope towards one corner, in order that it might easily be swept clean each day. The retention of dung and filth near the pig cote is another source of nuisance. A third source is the swill-tub or wash-tank; into this are thrown vegetable and animal refuse, which decomposes and gives off noxious gases. The liberation of these is assisted by stirring up the contents every time the pigs are fed.

But however clean a pig is kept, there are certain situations where the keeping of such an animal ought not to be allowed; viz—(1) adjoining the wall of a house under a window, for in such a situation the window cannot be opened without admitting the foul emanations of the pig cote. (2) Adjoining a public road or footpath. (3) Near to or in contact with a slaughter house. It would be a harsh law which

forbade a cottager keeping a pig when he thought he could do so with profitand without nuisance. On the other hand, no man has any right to keep pigs or create a nuisance at the expense of his neighbour's health and comfort. 72 Pigs kept in objectionable places, or so as to be a nuisance, have been removed. Most of these belonged to tradesmen and shopkeepers. I do not believe the sentimental grievance about interfering with the poor man's pig has any substantial foundation. In one case it was necessary to summon the offender before the Magistrates.

NOXIOUS TRADES.

One noxious trade has been dealt with during the year. A person commenced boiling and dressing silk waste in a very unsuitable building, and in such a manner as to create a nuisance. With the sanction of the Board of Health, he afterwards erected a more suitable building for the purpose on a less objectionable site, where the business with proper precautions, may be carried on with a minimum of offensiveness.

FILTHY HOUSES.

191 houses were, on inspection, found to be in a filthy and unwholesome state. They have been cleansed and lime-washed; the lime-wash being gratuitously supplied to those who were too poor to purchase it.

WORKS OF DRAINAGE, &c.

A great improvement has been made in the upper portion of Bank-street, where, during the year, a new main sewer has been laid in the street, the back yards and houses well drained, and the closets re-constructed.

Pearson-street has also been sewered and otherwise improved.

An important sanitary improvement has been effected in the lower portion of Sunderland-street, by the Dams Brook being diverted from its irregular course and taken by means of a culvert in a straight line through Mr. Roylance's timber yard. The intolerable nuisance from this polluted stream running at the back of dwelling houses, at the lower end of Sunderland-street, was mentioned to the Rivers' Pollution Commissioners when they visited the town in 1869.

COMMON LODGING HOUSES.

The registered lodging houses have been regularly inspected. On April 26th I presented a Report on the condition of the Common Lodging Houses, and suggested (1) that each lodger should be allowed 300 cubic feet of air; (2) that the number of lodgers for which each room was licensed should be legibly painted on the door; and (3) that every keeper of a lodging house should be required to make a weekly return of his lodgers. To the first suggestion the Board of Health did not assent, and the cubic air space was fixed at 250 feet, being the same as the amount allowed in the Metropolitan Lodging Houses, but less than those of Dublin. The other two suggestions were agreed to. The license of one of the houses having lapsed by reason of the death of the keeper, the house has been removed from the register, not being adapted for the purpose of a lodging house.

SLAUGHTER HOUSES.

The twenty-six licensed slaughter houses have been regularly inspected, and generally found to be well conducted.

DISEASED MEAT.

During the year 1150lbs. of diseased meat have been seized and destroyed as unfit for human food.

Table I.

Abstract of work done in the Sanitary Department, year ending 31st December, 1876:

Number of nuisances remaining unremoved January 1st., 1876,		364
Number of nuisances entered on the books during the year.....		1485
Number of nuisances removed.....		836
Number remaining unremoved 31st. December, 1876.....		1013
Number of houses inspected.....		2800
Number of houses specially inspected on account of infectious diseases		490
Number of houses disinfected after infectious disease.....		470
Number of peremptory notices under the Seal of the Board to repair or cleanse house drains.....	37	
To provide proper and sufficient closet accommodations...	174	
To remove other nuisances.....	60	
Total,	271	

Number of houses drained	95
Number of slopstone pipes disconnected with the sewer	82
Number of new closets built	61
Visits paid to the Common Lodging Houses	472
„ „ „ Slaughter Houses	650
Supplies of lime-wash given to the poor	227
Brushes lent for applying the same	130
Supplies of disinfectants given to the poor	178
Number of Summonses issued	9

Table II.

Number of loads of Night-soil and Rubbish taken from the Streets during the last five years :

Year.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
1872	1634	1087	653	1632	5006
1873	2113	1564	2295	1961	7933
1874	3660	2143	1092	1987	8882
1875	3228	3007	1226	2523	9984
1876	3753	2053	1645	2384	9835

Part II.

VITAL STATISTICS FOR THE YEAR 1876.

BIRTHS.

Birth rate of Macclesfield	35.2 per thousand.
Birth rate of England	36.5 „ „

The number of children born alive within the Borough was 1288, giving a birth rate of 35-2 per thousand. The births exceeded the deaths by 131, which is therefore the *natural* increase of the population. But the *actual* increase depends also upon the balance between immigration and emigratiom, of which no record exists.

Table III.

Showing the number of Births and of Illegitimate Births in the four districts of the Borough.

Districts.	Including Illegitimate Births.			Illegitimate Births.		
	Total.	Males.	Females.	Males.	Females.	Total.
West Macclesfield.....	583	305	278	31	16	47
East Macclesfield.....	370	181	189	20	18	38
Sutton.....	206	100	106	8	11	19
Hursdsfield.....	129	75	54	6	3	9
Total.....	1288	661	627	65	48	113

DISTRICT BIRTH RATES.

The birth rate was highest in Sutton—40.0 per thousand; East Macclesfield occupying the second place with a birth rate of 35.1 per thousand; then West Macclesfield and Hurdsfield, with rates of 33.8 and 30.0 respectively. (See Table 7.)

Table IV.

Showing the number of Births, and of Illegitimate Births, during each quarter of the year.

Quarters.	Including Illegitimate Births.			Illegitimate Births.		
	Total.	Males.	Females.	Males.	Females.	Total.
First Quarter	361	181	180	18	14	32
Second Quarter	322	174	148	17	9	26
Third Quarter.....	296	155	141	12	8	20
Fourth Quarter	309	151	158	18	17	35
Total	1288	661	627	65	48	113

QUARTERLY BIRTH RATES.

The first quarter of the year had the highest birth rate—39.5 per thousand; the third quarter had the lowest—32.4. In the second quarter the rate was 35.2; and in the fourth quarter 33.8 per thousand. (See Table 9.)

SEX.

Of the 1,288 children born alive, 661 were males and 627 females. According to the Registrar General's Reports 104 boys are, as a rule, born to 100 girls. In Macclesfield, during 1876, the number of male births was somewhat larger, being in the proportion of 105 boys to each hundred girls.

CHILDREN BORN OUT OF WEDLOCK.

One hundred and thirteen illegitimate children were born alive during the year, being a decrease of ten on the previous year. The illegitimate children form nearly ten per cent. of the whole births.

DEATHS.

Death rate of Macclesfield 1876 - -	28.1	per thousand
Death rate of England 1876 - - -	21.0	,,
Zymotic Death rate of Macclesfield - -	6.0	,,
Zymotic Death rate of England - - -	3.0	,,

1157 deaths took place in the borough of Macclesfield during the year; giving a death rate of 28.1 per thousand. This is considerably in excess of the rate of mortality for the previous years, which in 1875 was 25.0; in 1874, 26.6; in 1873, 26.1; and in 1872, 25.0.

The borough death rate is also higher than the average rate of twenty largest English towns (23.6) and of the fifty other large town districts similar in size to Macclesfield (21.9). Only three of the twenty largest towns in England had higher rates of mortality than Macclesfield; viz., Manchester (29.2), Oldham (29.4), and Salford (31.9). And only two suffered more severely from zymotic deaths; viz., Portsmouth whose Zymotic death rate was 6.5 and Salford 8.5. Of the fifty other large town districts, two have higher death rates than Macclesfield, viz., Stockport (29.4), and Preston (28.4); and none had so high a zymotic rate. Whereas no less than fourteen had rates of mortality below 20 per thousand.

The following table taken from the Registrar General's Annual Summary of Deaths for 1876 shows the mortality of various towns.

TABLE V.

TOWNS.	Birth Rate.	Death Rate.	Rate of the seven chief Zymotic Diseases.
London - - - -	36.5	22.3	3.6
Brighton - - - -	30.0	19.6	2.2
Portsmouth - - - -	32.5	22.1	6.5
Norwich - - - -	33.7	21.9	2.9
Plymouth - - - -	30.3	22.1	3.1
Bristol - - - -	37.6	22.6	3.8
Wolverhampton - - -	39.5	23.8	3.9
Birmingham - - -	42.8	22.7	3.6
Leicester - - - -	42.2	23.1	4.9
Nottingham - - - -	37.2	23.5	3.6
Liverpool - - - -	39.2	27.6	5.6
Manchester - - - -	39·8	29.2	5.2
Salford - - - -	49.3	31.9	8.5
Oldham - - - -	43.8	29.4	4.1
Bradford - - - -	39.2	23.9	3.7
Leeds - - - -	41.8	25.1	4.5
Sheffield - - - -	41.2	24.3	4.8
Hull - - - - -	42.0	22.9	3.6
Sunderland - - - -	40.9	21.0	4.1
Newcastle-on-Tyne - -	41.7	22.8	2.6
Average of the above 20 large towns	37.7	23.6	4.1
Average of 50 other large towns	38.0	21.9	3.3
MACCLESFIELD - -	35.2	28.1	6.0

DISTRICT MORTALITY.

Table VI.

Showing the number of Births and Deaths, of deaths from certain specified causes in the four districts of the borough.

DISTRICTS.	BIRTHS.	DEATHS.	DEATHS OF		DEATHS FROM.									Inquest Cases.	Deaths in Public Institutions.
			Children under one year of age.	Persons aged 60 years and upwards.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhœa.	Cholera.	Violence.		
West Macclesf'ld* Area 1716 acres Population 17,238	583	611	112	150	5†	31	25	...	19	3	15	...	12	19	184
East Macclesfield Area 881 acres. Population 10,520	370	327	89	56	...	34	27	...	3	3	7	...	7	24	...
Sutton, Area, 360 acres. Population 5,140	206	136	35	32	1	18	8	...	2	4	5	...	1	3	...
Hurdsfield, Area 274 acres. Population 3,683	129	83	29	14	...	2	5	...	3	...	...	..	1	1	...
Total.....	1288	1157	265	252	6	85	65	0	27	10	27	0	21	47	184

*Including the deaths in the Chester County Lunatic Asylum, Parkside, the Macclesfield Union Workhouse and the Macclesfield Infirmary.

†The five deaths from Small-pox took place in the Macclesfield Union Fever Wards. Two had been removed there from East Macclesfield and three from West Macclesfield.

For details of the deaths in the Public Institutions see Table XIII.

TABLE VII.

Showing the Birth rate, Death rate, and rate of the seven chief Zymotic Diseases per 1,000, the percentage of deaths of children to briths registered, and the analysis of the mortality in the four districts of the borough. (Allowance being made for the deaths in Public Institutions.)

DISTRICTS.	Rates per thousand.			Percentage of deaths of Children under 12 months old, to Births registered.	Percentage to total Deaths.		
	Births.	Deaths.	Deaths from the seven chief Zymotic Diseases.		Deaths of Children under twelve months old.	Deaths of People aged sixty years and upwards.	Deaths from the seven chief Zymotic Diseases.
West Macclesfield.....	33.8	26.7	5.6	19.2	25.5	18.6	22.4
East Macclesfield.....	35.1	33.2	7.0	24.0	27.2	17.1	23.1
Sutton.....	40.0	28.6	7.3	17.0	25.7	23.5	27.8
Hurdsfield.....	33.0	25.0	2.8	22.6	34.8	16.8	12.0

Of the four districts into which Macclesfield is for the purpose of these mortality returns divided, Hurdsfield has for the year the lowest death rate, 25.0 per 1,000, a post of honour hitherto held by West Macclesfield, whose mortality rate slightly exceeds that of Hurdsfield, 26.7 per 1,000. East Macclesfield has a very high death rate of 33.2 and Sutton 28.6.

All the districts, except Hurdsfield which suffered at the latter end of 1875, have very high rates of mortality from Zymotic deaths. The Zymotic death rate in East Macclesfield and Sutton was 7.0 and 7.3 per thousand respectively. In West Macclesfield it was 5.6, and in Hurdsfield 2.8. If we deduct the deaths from *preventible* diseases, the death rate of the various districts will be as follows: West Macclesfield 21.1, Sutton 21.3, Hurdsfield 22.2, and East Macclesfield 26.0. These figures may be considered the rates of mortality from *unavoidable* causes, and prove how very much the death rates have been increased by Zymotic or preventible diseases.

Of deaths among infants East Macclesfield and Hurdsfield suffered most severely; in the former district twenty-four, and the latter twenty-two, children of each hundred

born alive died before reaching the age of one year. In West Macclesfield nineteen and in Sutton seventeen in each hundred died.

In each hundred deaths occurring in Sutton twenty-three had reached or exceeded the age of sixty years. In West and East Macclesfield and Hurdsfield the proportions were eighteen, seventeen, and sixteen respectively.

The above figures prove that the mortality, and therefore the sanitary state of East Macclesfield to be most unsatisfactory. 1st—The death rate of that portion of the borough is excessively high, 33.2 per thousand. 2nd—It has suffered severely from Zymotic diseases. 3rd.—The rate of infantile mortality is great, nearly one-fourth of the children dying before they have been in the world twelve months. 4th—The proportion of deaths of old people is comparatively small. These two last reasons also point to an unsatisfactory state of things in Hurdsfield although that district has the lowest death rate for the year.

MORTALITY AS TO SEASONS.

Table VIII.

Showing the number of Births and Deaths and Deaths from certain specified causes during each quarter of the year 1876.

Quarters.	Births.	Deaths.	Deaths of		Deaths from									Inquest cases.	Deaths in Public Institutions.
			Children under one year old.	Persons aged 60 yrs. and upwards.	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa	Cholera	Violence		
First Quarter....	361	303	70	64	...	22	13	...	2	3	2	...	5	13	56
Second Quarter..	322	339	74	57	4	62	4	...	10	3	5	...	4	9	47
Third Quarter...	296	215	59	44	1	1	12	...	10	3	17	...	3	6	34
Fourth Quarter.	309	300	62	87	1	...	36	...	5	1	3	...	9	19	47
Total.....	1288	1157	265	252	6	85	65	0	27	10	27	0	21	47	184

Table IX.

Showing the Birth rate, Death Rate and rate of the seven principal Zymotic Deases per thousand of the population ; the per-centage of Infantile Deaths to Births registered ; and the analysis of mortality during each quarter of the year 1876.

Quarter.	Rates per thousand.			Percentage of Infantile Deaths to Births registered.	Percentages to Total Deaths.		
	Births.	Deaths.	Deaths from the seven chief Zymotic Diseases.		Deaths of Children under twelve months old	Deaths of Persons aged 60 years and upwards	Deaths from the seven chief Zymotic Diseases.
First Quarter.....	39.5	29.0	4.6	19.3	23.1	21.1	19.8
Second Quarter	35.2	34.3	9.6	22.9	22.1	16.8	25.9
Third Quarter.....	32.4	21.2	4.8	19.9	27.4	20.4	20.4
Fourth Quarter.....	33.8	30.6	5.0	20.0	20 6	29.0	15.3

The weather has generally an influence on the relative mortality of the four quarters of the year. A high death rate in any one given quarter is usually due either to the coldness of the season causing an excessive number of deaths from Lung diseases, or to the presence of an epidemic, or to a combination of both.

In 1876 the second quarter had the highest death rate, the excessive mortality being accounted for by the epidemic of Measles, which caused sixty-two deaths during the quarter, and the unusually cold weather, particularly in the month of April. The same reasons also account for the high death rate observed in the first quarter. In the fourth quarter the death rate was increased by the epidemic of Scarlet Fever.

The meteorology of the first quarter was remarkable for an excess of atmospheric pressure in January, and a great deficiency from early in February to the end of the quarter, for the amount of snow, and for the great alternations of temperature in each month. Early in April a period of very cold weather set in, and snow fell heavily, especially on the 13th and 14th, accompanied by bitterly cold winds. At the

end of the month there were about ten days fairly warm weather, but on the 30th another cold period began, which continued until the middle of June. During the greater part of May cold East and North-East winds prevailed. The third quarter was unusually warm, especially the month of July, when also the rainfall was scanty. The fourth quarter of the year was characterised by three remarkable features: the very low atmospheric pressure, the exceptionally high temperature during October and December, and the unprecedentedly heavy rainfall during December. (See also Table 11.)

MORTALITY AS TO SEX AND AGE.

The 1,157 deaths comprise 593 males and 564 females, giving a rate of mortality among females of 27.2 per thousand, and 29.0 among males.

Infantile Mortality.—265 children under twelve months old died during the year. According to the Registrar General's reports during the decimal period 1861-70 fifteen in each hundred children born alive died before they were twelve months old. In Macclesfield during 1876 twenty-one of every hundred children born alive died before they had been in the world twelve months; and in one district—East Macclesfield—the proportion was as high as twenty-four. Turning to the Registrar General's Annual Summary for the same year, I find that in none of the twenty largest English towns was the rate of infantile mortality so high as in Macclesfield; in only two towns—Leicester and Liverpool—did the percentage average twenty. These figures show a great waste of infant life in this borough, increased by the fatal prevalence of Measles and Scarlet Fever.

Deaths at the Reproductive Age.—312 deaths took place at the reproductive age (15-55). Consumption and Heart Disease were the most fruitful sources of death at this age.

Deaths of Old People.—252 persons died aged sixty years and upwards. Of this number 194 had reached or exceeded the age of sixty-five, 82 that of seventy-five,16 that of eighty five, and one was over ninety-five years of age.

(MORTALITY AS TO DISEASE, see Table 12.)

Class I.—*Zymotic Diseases.*

The whole class of Zymotic Diseases includes 254 deaths, of which 220 are referred to what are known as the seven principal Zymotic Diseases.

Table X.

Showing the number of deaths from the seven chief Zymotic diseases during the years 1873, 1874, 1875, and 1876.

Disease.	1873	1874	1875	1876
Small Pox	0	0	0	6
Measles	3	26	1	85
Scarlet Fever	5	11	31	65
Diphtheria	1	0	2	0
Fever — Typhus	3	1	0	2
Fever — Typhoid or Enteric	8	12	13	7
Fever — Continued	4	6	4	1
Diarrhœa	34	49	32	27
Whooping Cough	6	25	5	27
Total	64	130	88	220

The death rate from the above seven diseases in 1873 was 1.7 per thousand, rising the following year to 3.5; in 1875 it was 2.4; and in 1876 rose as high as 6.0 per thousand.

For the first time since my appointment as Medical Officer of Health, Smallpox appears in the death registers, and is credited with six deaths. In the first part of this Report I have referred to the introduction of this disease into the town.

Measles and Scarlet Fever, to which I have before alluded, were fatal to 85 and 65 lives respectively; numbers greatly in access of any previous year.

Whooping Cough was more fatal than in the preceding year; 27 deaths being attributed to it.

The deaths from Diarrhœa show a pleasing reduction; 27 deaths being registered in 1876, against 32, 49, and 34 in the previous years.

Ten deaths are referred to various forms of Fever; one

was certified as due to Continued Fever, two to Typhus, and seven to Enteric Fever. The latter is always caused by local sanitary defects.

No death was caused by Diphtheria.

Among the other deaths in the Miasmatic order are two from Croup, two from Puerperal or Child-bed Fever, three from Erysipelas, three from Dysentery, and nine from Acute Rheumatism.

Turning to the Enthetic order of Zymotic diseases, six deaths are noticed from Syphilis, of which five were children under two years of age who had inherited it.

The direct fatal effects of excessive drinking intoxicating liquors are seen in nine deaths from Alcoholism.

Class II.—*Constitutional Diseases.*

Constitutional diseases comprise a class of disorders to which 187 deaths are referred. This class is divided into two orders, Diathetic and Tubercular; the former including 26 deaths, the latter 171.

Of the twenty-six deaths in the Diathetic order, nineteen were caused by Cancer, four were due to Dropsy, and three to Mortification.

Among the Tubercular diseases Phthisis (Consumption) shows a marked increase; in 1872 the number of deaths registered as due to this disease was 102; the following year the number rose to 105, falling again the next year to 103, and rising in 1876 to the large number of 121, being the most fatal of all the disease in the mortality list for the year. The other deaths from Tubercular diseases are thirty-five from Tabes Mesenterica, three from Hydrocephalus (Water on the Brain), and two from Scrofula.

Class III.—*Local Diseases.*

This class comprises the inflammations and other well-defined local affections of the eight great systems of organs comprising the body. 491 deaths are included in this class.

Diseases of the Nervous System.—Diseases of the Brain, Spinal Marrow, and Nerves, caused 198 deaths. 64 of these deaths were due to Convulsions, of 50 were children under twelve months old; 43 were caused by Paralysis, 26 by Epilepsy, 16 by Apoplexy, 11 by Cephalitis (Inflammation of the Brain), and 37 were due to other forms of Brain

disease, chiefly Softening of the Brain. Insanity is credited with one death.

Diseases of the Heart and Organs of Circulation caused 74 deaths.

Diseases of the Organs of Respiration were fatal to 145 lives. 108 of these deaths were due to Bronchitis;—next to Consumption, the most fatal of all diseases during the year—23 to Pneumonia (Inflammation of the Lungs), and seven to Asthma, and seven to other forms of Lung disease.

Diseases of the Digestive Organs caused 46 deaths. 26 of these deaths are referred to various diseases of the Stomach and Bowels, and 20 to diseases of the Liver.

Diseases of the Urinary Organs.—Diseases of these Organs were fatal to eighteen lives. Five of these were caused by Bright's disease, six by Cystitis (Inflammation of the Bladder). one by Diabetes, and six to other forms of Kidney disease.

Diseases of the Organs of Generation, of the Organs of Locomotion, and of the Integumentary System, were fatal in one, seven, and two instances respectively.

Class IV.—*Developmental Diseases.*

These are the diseases incidental to Development, Growth, and Senile Decay. 180 deaths are included in this class.

The Developmental diseases of Childhood were fatal to 46 children, of which 21 were prematurely born, two were Malformed, and twenty-three died from the effects of Teething.

Six mothers died during, or from the effects of Child-birth, including two from Puerperal or Child-bed Fever.

Sixty-five deaths are attributed in the death certificates to "Old Age" or "Senile Decay."

A like number of deaths are certified as due to Atrophy or Debility; these are cases of defective nutrition.

Class V.—*Violent Deaths.*

Twenty-one Violent deaths took place during the year; five were Suicides; the remainder were the result of accidents.

Causes Not Specified.—In twenty-four instances the cause of death was either not stated or was ill-defined. The majority of these deaths have, after inquests, been entered in the death registers as due to "Natural Causes, suddenly." Such entries as these are valueless for the purposes of classification.

The year has been more fatal than usual. The death rate is very much too high; the mortality from preventible cause excessively great; and the rate of mortality among children lamentably large.

The year has been one of anxiety. The introduction of Smallpox into the Borough on five different occasions was the source of many anxious forebodings. Anxious thoughts and persevering hard work had their origin, too, in the endeavours made to check and to stamp out the epidemic of Measles in the earlier portion of the year, and the outbreak of Scarlet Fever at its close.

The year has been one of progress. The Table at the end of the first part of this Report shows that, in addition to several streets being sewered, a good work has been done in seeking out and removing nuisances. These sanitary measures assist in arresting the ravages of disease; but there are other causes which tend to keep up a high death rate—the want of personal cleanliness, the drinking habits of the people, the unwholesome atmosphere in districts that must almost of necessity remain comparatively densely populated, the improper feeding of infants, and the absence of proper maternal care—over these causes, so prejudicial to health, a Sanitary Authority has little or no control.

I have the honour to be,

Mr. Chairman and Gentlemen,

Your obedient Servant,

GEORGE BLAND,

Medical Officer of Health.

To the Local Board of Health.
Macclesfield.

Table XI.

MONTHLY METEOROLOGICAL MEMORANDA, 1876.

Months.	Mean Temperature.	Mean Atmospheric pressure.	Rainfall.		Relative proportion of wind.				Mean Amount of Ozone.
			No. of Wet days.	Amount Collected.	N.	E.	S.	W.	
January ...	37.51	29.85	13	1.94	4	8	6	13	1.0
February ...	39.79	29.39	22	4.18	6	5	6	12	2.6
March ...	39.31	29.35	22	3.88	7	5	5	12	2.5
April ...	46.66	29.66	17	3.46	5	10	5	10	1.8
May ...	48.1	29.84	8	1,32	8	10	5	8	1.7
June ...	57.1	29.59	15	3.76	7	6	5	12	1.9
July ...	62.99	29.68	14	2.65	8	8	5	10	1.3
August ...	60.70	29.54	15	3.04	7	4	7	13	1.5
September	55.90	29.37	24	6.16	9	5	6	10	1.2
October ...	50.0	29·54	12	1.98	3	8	15	5	1.1
November	41.45	29.37	19	4.48	5	10	8	7	0.5
December	43.95	29.10	19	5.20	3	8	13	7	1.6

APPENDIX.

The following are the reports of the deputation appointed to visit certain Fever Hospitals:

COVENTRY.

GENTLEMEN,—As part of the deputation appointed to visit various fever hospitals, we inspected the Infectious Diseases Hospital at Coventry on the 8th inst. We regret that owing to ill-health, Mr. Councillor Hordern was unable to accompany us. The Coventry Fever Hospital is erected in the grounds of the Coventry and Warwickshire General Infirmary, but is in every respect a separate and distinct establishment, and is under the sole control of the Urban Sanitary Authority. It is constructed of corrugated iron, lined inside with wood, and was made by Messrs. F. Brady and Co., of London, at a cost of £366 18s. ; the whole cost of the building, including the foundations (which were laid by the Corporation) gas-fittings, fire-places, &c., being about £600. The furniture and bedding cost an additional £100. The building consists of two wards, entered by a common porch, with kitchen, bath-room and nurses' rooms in the rear. The wards are supposed to accommodate eight patients each, but we were informed by Dr. Fenton, the Officer of Health, that there was not sufficient air-space for more than five beds in each ward. The kitchen and nurses' rooms are inconveniently small. The ventilation of the wards is effected by means of inlets round the lower portion of the sides of the building and an outlet along the ridge of the roof, but it is found to be unsatisfactory. The closets are directly connected with the wards, there being no cross current of air between the closets and wards, as there ought to be in a fever hospital. The drainage is connected with the general drainage of the city ; this we consider objectionable, as the sewage of a fever hospital should be treated separately by itself. A disinfecting chamber is provided, and no necessity has arisen for the destruction of clothes and bedding exposed to smallpox contagion. There is no general staff of nurses employed at the hospital. At the time of our visit no one was living on the premises, and there was simply one woman employed whose duties were to occasionally light fires in the wards and keep the hospital clean. We were informed that no difficulty was experienced in obtaining suitable nurses when required. We were strongly recommended by Dr. Fenton and by Mr. Prunell, the city surveyor, not to countenance the erection of an iron hospital. They informed us that the building was erected on an emergency, when time was of vital importance, and although it answered its purpose in stamping out an epidemic of smallpox, yet the hospital has several drawbacks, especially the heat of the wards in the summer months. During the epidemic forty cases of smallpox were treated in the hospital. At first some difficulty was experienced in getting the labouring classes to use the hospital, but afterwards their prejudices were overcome, and then the epidemic speedily abated. It was also pointed out to us that the builders guaranteed the hospital for twelve years only, and should it need reconstruction at the end of that period, it would prove more expensive than a brick building. Under these circumstances we feel we cannot recommend that the fever hospital for this borough be built of iron. We have not at present visited Nottingham or Leek, and advise that the resolution, so far

TABLE 12.—CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE BOROUGH OF MACCLESFIELD, 1876.

CLASS.	CAUSES OF DEATH.	ALL AGES.	UNDER 1 YEAR.	1	2	3	4	TOTAL UNDER 5 YEARS	5—	10—	15—	20—	25—	35—	45—	55—	65—	75—	85—	95 and upwards	CAUSES OF DEATH.	CLASS.
	ALL CAUSES	1157	265	114	53	38	26	496	35	14	27	31	70	79	105	106	111	66	16	1	ALL CAUSES	
	SPECIFIED CAUSES	1133	253	114	52	38	26	483	34	14	27	31	69	77	104	102	109	66	16	1	SPECIFIED CAUSES	
	(CLASSES)																				(CLASSES.)	
I.	ZYMOTIC DISEASES	254	63	58	31	23	20	195	19	2	5	6	7	6	7	2	4	1	...	...	ZYMOTIC DISEASES	I.
II.	CONSTITUTIONAL ,,	187	14	13	2	4	1	34	5	4	10	13	28	24	35	18	12	4	...	...	CONSTITUTIONAL ,,	II.
III.	LOCAL ,,	491	98	19	14	10	5	146	7	4	12	10	28	44	60	74	71	30	4	1	LOCAL ,,	III.
IV.	DEVELOPMENTAL ,,	180	78	24	5	...	...	107	1	1	...	2	...	3	1	5	20	29	11	...	DEVELOPMENTAL ,,	IV.
V.	VIOLENT DEATHS	21	...	...	...	1	...	1	2	3	...	...	6	...	1	3	2	2	1	...	VIOLENT DEATHS	V.
	(ORDERS.)																				(ORDERS.)	
I.	1. MIASMATIC DISEASES	239	59	57	31	23	20	190	19	2	5	5	4	4	5	1	3	1	...	...	1. MIASMATIC DISEASES	I.
	2. ENTHETIC ,,	6	4	1	...	...	...	5	...	...	...	1	...	...	...	...	...	...	...	...	2. ENTHETIC ,,	
	3. DIETIC ,,	9	...	...	...	...	...	0	...	...	...	...	3	2	2	1	1	...	...	...	3. DIETIC ,,	
	4. PARASITIC ,,	0	...	...	...	...	...	0	...	...	...	...	...	...	...	...	...	...	...	...	4. PARASITIC ,,	
II.	1. DIATHETIC ,,	26	...	...	1	...	1	2	...	...	...	...	2	1	9	3	6	3	...	...	1. DIATHETIC ,,	II.
	2. TUBERCULAR ,,	171	14	13	1	4	...	32	5	4	10	13	26	23	26	15	6	1	...	...	2. TUBERCULAR ,,	
III.	1. DISEASES OF NERVOUS SYSTEM	198	54	5	5	6	4	74	5	2	5	4	13	20	23	23	19	9	1	...	1. DISEASES OF NERVOUS SYSTEM	III.
	2. ,, ORGANS OF CIRCULATION	74	...	..	...	...	...	0	...	...	2	1	3	8	8	25	22	4	1	...	2. ,, ORGANS OF CIRCULATION	
	3. ,, RESPIRATORY ORGANS	145	37	13	9	4	1	64	2	1	2	3	5	9	14	10	19	13	2	1	3. ,, RESPIRATORY ORGANS	
	4. ,, DIGESTIVE ORGANS	46	4	1	..	...	...	5	...	...	1	1	4	5	10	12	6	2	...	...	4. ,, DIGESTIVE ORGANS	
	5. ,, URINARY ORGANS	18	...	...	..	...	...	0	...	...	1	1	1	1	4	3	5	2	...	...	5. ,, URINARY ORGANS	
	6. ,, ORGANS OF GENERATION	1	...	...	...	...	...	0	...	...	...	..	...	...	1	...	...	...	...	...	6. ,, ORGANS OF GENERATION	
	7. ,, ORGANS OF LOCOMOTION	7	1	...	...	...	...	1	...	1	1	...	2	1	..	1	...	...	...	...	7. ,, ORGANS OF LOCOMOTION	
	8. ,, INTEGUMENTARY SYSTEM	2	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	8. ,, INTEGUMENTARY SYSTEM	
IV.	1. DEVELOPMENTAL DISEASES OF CHILDREN	46	36	10	...	...	...	46	...	...	...	...	...	...	...	...	...	...	...	...	1. DEVELOPMENTAL DISEASES OF CHILDREN	IV.
	2. ,, ,, ADULTS	4	...	...	...	...	...	0	...	...	...	1	...	3	...	...	...	...	...	...	2. ,, ,, ADULTS	
	3. ,, ,, OLD PEOPLE	65	...	...	...	...	..	0	...	...	...	...	...	...	1	4	20	29	11	...	3. ,, ,, OLD PEOPLE	
	4. DISEASES OF NUTRITION	65	42	14	5	...	...	61	1	1	...	1	...	...	..	1	...	...	...	...	4. DISEASES OF NUTRITION	
V.	1. ACCIDENT OR NEGLIGENCE	16	...	...	...	1	...	1	2	3	...	...	3	...	...	3	1	2	1	...	1. ACCIDENT OR NEGLIGENCE	V.
	*																			...		
	3. HOMICIDE	0	...	...	...	...	...	0	...	...	...	...	...	...	...	...	...	...	...	...	3. HOMICIDE	
	4. SUICIDE	5	...	...	...	...	...	0	...	...	...	...	3	...	1	...	1	...	...	...	4. SUICIDE	
	SUDDEN DEATHS, CAUSE UNASCERTAINED	18	8	...	1	...	...	9	1	...	...	...	...	2	...	4	2	...	...	...	SUDDEN DEATHS, CAUSE UNASCERTAINED	
	CAUSES NOT SPECIFIED OR ILL DEFINED	6	4	...	...	...	...	4	...	...	...	...	1	...	1	...	...	...	...	...	CAUSES NOT SPECIFIED, OR ILL DEFINED	
I.	ORDER 1.																				ORDER 1.	I.
	Smallpox	6	...	...	...	...	...	0	...	..	2	1	...	2	1	...	...	...	...	...	Smallpox	
	Measles	85	25	32	11	8	3	79	6	...	...	...	...	...	...	...	...	...	...	...	Measles	
	Scarlet Fever	65	4	10	14	12	12	52	12	1	...	...	...	...	...	...	...	...	...	...	Scarlet Fever	
	Diphtheria	0	...	...	...	...	...	0	...	...	...	...	...	...	...	...	...	...	...	...	Diphtheria	
	Croup	2	...	2	...	...	...	2	...	...	...	...	...	...	...	...	...	..	...	...	Croup	
	Whooping Cough	27	11	9	3	1	3	27	...	...	...	...	...	...	...	...	...	...	...	...	Whooping Cough	
	Fever { Typhus	2	...	...	..	1	...	1	..	1	...	...	...	...	...	...	...	...	...	...	Fever { Typhus	
	Fever { Typhoid or Enteric	7	...	...	1	...	...	1	1	...	1	1	1	...	2	...	...	..	...	...	Fever { Typhoid or Enteric	
	Fever { Continued	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	Fever { Continued	
	Erysipelas	3	...	1	...	...	...	1	...	...	...	...	...	1	...	...	1	...	...	...	Erysipelas	
	Puerperal Fever (Metria)	2	...	...	...	...	...	0	...	...	...	...	1	1	...	...	...	...	...	...	Puerperal Fever (Metria)	
	Dysentery	3	1	...	...	1	...	2	...	...	...	...	...	...	...	...	1	...	...	...	Dysentery	
	Diarrhœa	27	18	3	2	...	...	23	...	...	...	...	...	...	1	1	1	...	...	...	Diarrhœa	
	Rheumatism	9	...	...	...	...	1	1	...	...	2	3	2	...	1	...	...	...	...	...	Rheumatism	
	ORDER 2.																				ORDER 2.	
	Syphilis	6	4	1	...	...	...	5	...	...	...	1	...	...	...	...	...	...	...	...	Syphilis	
	Stricture of Urethra	0	...	...	...	...	...	0	...	...	...	...	...	...	...	...	...	...	...	...	Stricture of Urethra	
	Hydrophobia	0	...	...	...	...	...	0	...	...	...	...	...	...	...	...	...	...	...	...	Hydrophobia	
	ORDER 3.																				ORDER 3.	
	Alcoholism	9	...	...	...	...	...	0	...	...	...	...	3	2	2	1	1	...	...	...	Alcoholism	
II.	ORDER 1.																				ORDER 1.	II.
	Gout	0	...	...	...	...	...	0	...	...	...	...	...	...	...	...	...	...	...	...	Gout	
	Dropsy	4	...	...	1	...	...	1	...	...	...	...	...	...	...	1	1	1	...	...	Dropsy	
	Cancer	19	...	...	...	...	...	0	...	...	...	...	2	1	9	2	4	1	...	...	Cancer	
	Mortification	3	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	1	...	...	Mortification	
	ORDER 2.																				ORDER 2.	
	Scrofula	2	...	...	...	...	...	0	...	...	...	1	...	...	...	1	...	...	...	...	Scrofula	
	Tabes Mesenterica	35	11	12	1	4	...	28	2	1	1	...	...	1	1	1	...	...	...	...	Tabes Mesenterica	
	Phthisis	121	...	1	...	...	...	1	3	3	9	12	26	22	25	13	6	1	...	...	Phthisis	
	Hydocephalus	3	3	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	Hydocephalus	
III.	ORDER 1.																				ORDER 1.	III.
	Cephalitis	11	3	...	1	1	...	5	2	2	...	...	...	...	1	1	...	...	...	...	Cephalitis	
	Apoplexy	16	...	...	...	...	..	0	..	...	2	...	...	1	1	8	1	3	...	...	Apoplexy	
	Paralysis	43	...	...	...	...	...	0	...	...	...	1	5	9	8	8	8	4	...	...	Paralysis	
	Insanity	1	...	...	...	...	...	0	...	...	...	...	1	...	...	...	...	...	...	...	Insanity	
	Epilepsy	26	...	...	...	...	1	1	...	...	3	3	6	4	7	...	2	...	...	...	Epilepsy	
	Convulsions	64	50	5	4	4	...	63	1	...	...	...	...	...	...	...	...	...	...	...	Convulsions	
	Brain Disease, &c.	37	1	...	...	1	3	5	2	...	...	...	1	6	6	6	8	2	1	...	*Brain Disease, &c.*	
	ORDER 2.																				ORDER 2.	
	Pericarditis	1	...	...	...	...	...	0	...	...	...	...	...	...	...	...	1	...	...	...	Pericarditis	
	Aneurism	1	...	...	...	...	...	0	...	...	...	...	...	...	...	1	...	...	...	...	Aneurism	
	Heart Disease, &c.	72	...	...	...	...	..	0	...	...	2	1	3	8	8	24	21	4	1	...	*Heart Disease, &c.*	
	ORDER 3.																				ORDER 3.	
	Bronchitis	108	30	9	7	3	...	49	...	1	...	1	2	5	9	8	18	12	2	1	Bronchitis	
	Pleurisy	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	..	...	..	...	Pleurisy	
	Pneumonia	23	7	3	2	1	1	14	2	...	2	...	...	3	2	...	...	...	...	...	Pneumonia	
	Asthma	7	...	...	...	...	...	0	...	...	...	1	...	...	3	2	1	...	...	...	Asthma	
	Lung Diseases, &c	6	...	...	...	...	...	0	...	...	...	1	3	1	...	...	...	1	...	...	*Lung Disease, &c.*	
	ORDER 4.																				ORDER 4.	
	Gastritis	4	...	1	...	...	...	1	...	...	...	...	1	...	...	2	...	...	...	...	Gastritis	
	Enteritis	6	2	...	...	...	...	2	...	...	...	...	1	1	...	1	1	...	...	...	Enteritis	
	Peritonitis	3	1	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	...	...	Peritonitis	
	Ulceration of Intestines	2	...	...	...	...	...	0	...	...	..	...	1	...	1	...	...	...	...	...	Ulceration of Intestines	
	Hernia	2	..	...	...	...	...	0	...	...	...	...	...	1	...	...	1	...	...	...	Hernia	
	Ileus	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	Ileus	
	Intussusception	4	...	...	..	...	...	0	..	...	...	...	...	...	...	1	3	...	...	...	Intussusception	
	Stomach Disease, &c.	4	...	...	...	...	...	0	...	...	1	...	...	...	...	2	...	...	...	...	*Stomach Disease, &c.*	
	Hepatitis	1	...	...	...	...	...	0	...	...	...	...	...	...	...	1	...	...	...	...	Hepatitis	
	Jaundice	6	...	...	...	...	...	0	...	...	...	...	1	2	...	2	1	...	...	...	Jaundice	
	Liver Disease, &c.	13	...	...	...	...	...	0	...	...	...	1	...	...	7	3	...	2	...	...	*Liver Disease, etc.*	
	ORDER 5.																				ORDER 5.	
	Bright's Disease (Nephria)	5	...	...	...	...	...	0	...	...	...	1	1	1	1	1	...	...	...	...	Bright's Disease (Nephria)	
	Diabetes	1	...	...	...	...	...	0	...	...	1	...	...	...	...	...	...	...	...	...	Diabetes	
	Cystitis	6	...	...	...	...	...	0	...	...	...	...	...	...	1	...	4	1	..	...	Cystitis	
	Kidney Disease, etc.	6	..	...	...	...	...	0	...	...	...	...	...	...	2	2	1	1	...	...	*Kidney Disease, &c.*	
	ORDER 6.																				ORDER 6.	
	Uterus Disease, etc.	1	...	...	...	...	...	0	...	...	...	...	...	...	1	...	...	...	...	...	*Uterus Disease, &c.*	
	ORDER 7.																				ORDER 7.	
	Joint Disease, etc.	7	1	...	...	...	...	1	...	1	1	...	2	1	...	1	..	...	...	...	*Joint Disease, &c.*	
	ORDER 8.																				ORDER 8.	
	Phlegmon	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	Phlegmon	
	Skin Disease, etc.	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	*Skin Disease, &c.*	
IV.	ORDER 1.																				ORDER 1.	IV.
	Premature Birth	21	21	...	...	...	...	21	...	...	...	...	...	...	...	...	...	...	...	...	Premature Birth	
	Malformations	2	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	Malformations	
	Teething	23	13	10	...	...	...	23	...	...	...	...	...	...	...	...	...	...	...	...	Teething	
	ORDER 2.																				ORDER 2.	
	Childhirth	4	..	...	...	...	...	0	...	...	...	1	...	3	...	...	...	..	...	...	Childhirth	
	ORDER 3.																				ORDER 3.	
	Old Age	65	...	..	..	...	..	0	...	...	...	...	...	...	1	4	20	29	11	...	Old Age	
	ORDER 4.																				ORDER 4.	
	Atrophy and Debility	65	42	14	5	...	...	61	1	1	...	1	...	...	...	1	...	...	...	..	Atrophy and Debility	
V.	ORDER 1. (ACCIDENT OR NEGLIGENCE.)																				ORDER 1. (ACCIDENT OR NEGLIGENCE.)	V.
	Fractures and Contusions	5	...	...	..	...	...	0	...	...	...	...	1	...	...	2	...	1	1	...	Eractures and Contusions	
	Burns and Scalds	5	...	...	...	1	...	1	1	...	...	...	2	...	...	1	...	..	...	...	Burns and Scalds	
	Drowning	2	...	...	...	...	...	0	1	1	...	...	...	...	...	...	...	...	...	...	Drowning	
	Suffocation	1	...	...	...	...	...	0	...	1	...	...	...	...	...	...	...	...	...	...	Suffocation	
	Fall	2	...	...	...	...	...	0	...	1	..	...	...	...	...	...	...	1	...	...	Fall	
	Means not stated	1	...	...	...	...	...	0	...	...	...	...	...	...	...	...	1	...	...	...	Means not stated	
	ORDER 4. SUICIDE.	5	...	...	...	...	...	0	...	...	...	...	3	...	1	...	1	...	...	...	ORDER 4. SUICIDE.	

* Order 2, (Class V.) comprising Voilent Deaths in Battle; and order 5, Execution, are omitted as inapplicable to Macclesfield.


BRITISH MUSEUM

as Nottingham is concerned, be rescinded, as we find that the fever hospital there consists of a series of wooden sheds on brick foundations. We would prefer visiting a permanent brick hospital. Our sincere thanks are due to Dr. Fenton and Mr. Prunell for their courtesy and kindness in giving us all requisite information.

(Signed) John Fowler,
George Bland, Medical Officer of Health,
Jabez Wright, Borough Surveyor.

MONSALL, near Manchester.

Gentlemen,—We beg to report that in accordance with the request of the Board we visited the Fever Hospital at Monsall, near Manchester, on the 27th ult. This institution is under the management of the trustees of the Manchester Royal Infirmary, but the Corporation of Manchester has made such arrangements as enable them to send cases of contagious disease to it. The establishment consists of a number of separate and detached buildings, comprising (1) a two-storied hospital, accommodating 64 patients, with kitchen and nurses' rooms, erected at a cost of £4,000 ; this building is devoted to typhus, enteric, and scarlet fevers. (2) A Cottage Hospital, divided into small private wards for the better class of patients ; it contains 16 beds, and cost £800. (3) A pavillion for smallpox cases, with kitchen and nurses' rooms complete, and a private ward at the end of each of the two general wards ; it accommodates 18 patients and cost £1,100. (4) Two wooden sheds, each containing 32 beds, devoted to smallpox cases. These sheds are double-cased Aldershot huts on brick foundations, and may be built at a cost of about £25 per bed. In addition there are provided a residence for the surgeon, a mortuary, wash-houses, &c. All the clothes are disinfected in a suitable chamber, and we were informed there was never any necessity for the destruction of infected clothes and bedding.

Of the hospital buildings proper we were most pleased with the brick pavilion for smallpox cases, which appeared to us to be most suitable for the requirements of this town. Having in view the impossibility of treating two contagious diseases in one ward, we are of opinion that permanent brick wards should be provided for the separate treatment of typhoid or enteric fever and for scarlet fever, with a central administration block, and that a double-cased hut on brick foundations should also be erected for the treatment of smallpox cases. We make the latter recommendation all the more readily as we were assured by Dr. Wilkinson, senior physician to the Infirmary, that the smallpox cases recovered better in the wooden sheds than they did in the brick buildings.

Dr. Reed, whom we met at the Infirmary after leaving the Monsall hospitals, kindly gave us the address of the architect, from whom he thought we might get the cost, and perhaps a plan of the building. The comptroller has written for this information in answer to which the architect has sent a very satisfactory reply, which the Sanitary Committee will take into consideration.

The deputation beg to tender their thanks to Dr. Wilkinson and to Dr. Reed for their courteous reception both at the Monsall hospitals and at the Infirmary.

(Signed) Anth. Hordern,
John Fowler,
George Bland, Medical Officer of Health,
Jabez Wright, Borough Surveyor.

DR. BUCHANAN'S REPORT ON INFECTIOUS HOSPITAL PROVISION REQUIRED AT MACCLESFIELD.

The urban sanitary district has some 35,000 inhabitants, and the rural sanitary district some 25,000. Within the area of the latter are three small local board districts with populations severally of 3,668, 1,159, and 1, 649. I did not concern myself with these latter.

After my conferences I found the principle that some hospital provision for sanitary purposes was wanted, received a general acquiescence. The only difference of opinion was as to the nature of the provision to be made, and as to the desirability of making it by joint action of the two Sanitary Authorities of Macclesfield. These two authorities have however appointed, at the meetings which I attended, delegates to confer together on the practicability of joint hospital provision for the urban and the rural districts. The resolutions appointing these delegates will be sent to the Board.

In my judgement this joint provision will be best. The town of Macclesfield is fairly centrally placed within the rural district, and a hospital in or near the town may properly serve for almost the whole population of both the urban and rural districts.

Supposing it to be provided, there will arise for consideration its use by the small local board districts and its use by the Guardians of the Poor. Patients from the former may be received on payment of a fee for each case, or by other equitable arrangement that the small local boards may make with the Hospital Authority. No difficulty is foreseen in this arrangement, and it is thought best to leave the reception of cases from the small urban districts to be settled by circumstances. As regards paupers —and first as to the out-door poor—understanding that these may either be sent to a sanitary hospital as paupers by the guardians of the poor, or may be received into the sanitary hospital, not as paupers, by the sanitary authority acting in the interests of the public health, I soon found reason to be sure that at Macclesfield the second of these alternatives would be the wiser course of proceeding. Accordingly I pressed upon the sanitary authorities that question of poverty or riches, of previous relief given by the Guardians to the sick person, or of relief required for the support of a family during the sickness of a member of it, need not enter into consideration when there was question of removing a person to hospital for sanitary reasons, so that the sanitary authority in charge of the sanitary hospital need not entertain any question of pauperism in regard to the class of the out-door poor.

With in-door paupers and tramps the case appears somewhat different. The workhouse is at present furnished with a fever building, which it is wished to use for other purposes, and some new provisions on the workhouse grounds for the reception of infectious diseases occurring in the workhouse is in contemplation. Now if sanitary hospital provision existed in this neighbourhood the Guardians of the Poor might certainly dispense with this contemplated provision, and send to the sanitary hospital any dangerous infectious disease that occurred in the workhouse or among tramps. The Guardians have been told so by the Board, and I re-stated the argument for the consideration of the sanitary authorities whom I met. But I could see that both rural and urban sanitary authorities, the latter especially, held a very strong opinion that the reception of workhouse inmates and tramps into a sanitary hospital would prevent that hospital being used by other classes of the population; and I found the Guardians of the Poor taking

TABLE XIII.

TABLE OF DEATHS during the year 1876 *in the Urban Sanitary District of Macclesfield; classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the year.*

[LOCAL GOVERNMENT BOARD FORM.]

(A.) Names of Localities (being Parishes, Townships, Wards, or other areas of known population) adopted for the purpose of these Statistics; public institutions being excluded.	Population at all Ages.		Registered Births.	Mortality from all causes, at subjoined Ages.							Mortality from subjoined causes, distinguishing deaths in Persons under Five Years of Age.																				
																		Continued Fevers.														
	Census, 1871.	Estimated to middle of 1876.		At all ages.	Under 1 year.	1 and under 5	5 and under 15	15 and under 25	25 and under 60	60 and upwards		Smallpox.	Measles.	Scarlatina.	Diphtheria.	Croup (not "spasmodic.")	Whooping Cough.	Typhus.	Enteric or Typhoid.	Other or doubtful.	Diarrhœa and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia and Pleurisy.	Heart Disease.	Injuries.
1.	2	3	4	5	6	7	8	9	10.	11	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.
West Macclesfield.	16625	17238	583	427	109	108	14	19	96	81	Under 5	...	26	21	...	2	19	...	1	...	11	...	...	1	...	...	...	...	30	...	...
											5 upwds.	...	3	4	...	...	...	...	2	...	2	...	4	1	...	2	...	40	22	30	5
East Macclesfield...	10214	10520	370	327	89	78	16	15	75	56	Under 5	...	34	23	...	...	3	...	1	...	7	...	1	...	...	...	...	1	22	...	...
											5 upwds.	...	...	4	...	...	...	1	1	...	1	...	4	1	...	...	...	35	19	15	7
Sutton	5063	5140	206	136	35	27	11	5	26	32	Under 5	...	15	6	...	...	2	...	...	1	6	...	...	...	...	...	...	...	6	...	...
											5 upwds.	1	3	2	...	...	...	1	2	...	1	...	...	...	...	...	...	19	13	6	1
Hurdsfield	3669	3683	129	83	29	13	6	3	18	14	Under 5	...	2	2	...	...	3	...	...	...	1	...	...	...	...	...	...	...	5	...	...
											5 upwds.	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	11	7	2	1
(B.) Public Institutions. County Lunatic Asylum	...	...	...	106	...	...	1	9	71	25	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
											5 upwds.	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	11	4	8	2
Maccl'sf'd Union Workhouse ...	...	...	...	61	3	3	0	6	10	39	Under 5	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
											5 upwds.	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	7	1
Macclesfield Infirmary	...	...	...	17	...	2	1	1	8	5	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
											5 upwds.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	4	3
Totals	35571	36581	1288	1157	265	231	49	58	302	252	Under 5	...	79	52	...	2	27	...	2	1	25	...	1	1	...	...	...	1	64	...	1
											5 upwds.	6	6	13	...	...	...	2	5	...	5	...	8	2	...	2	...	120	68	72	20

the view that some means of isolating workhouse inmates and tramps, when ill of any disease that required isolation, ought to be possessed by the workhouse itself. These views appeared to me to be based on local knowledge and experience, and to be worthy of the Board's attentive consideration. Such isolation-provision as the Guardians would need for the purpose would be of a nature of a spare room in a private house, capable of being used for the separation of sick inmates requiring isolation, but not to be used for the reception of such sick from outside.

Supposing, however, that the urban and rural sanitary authorities do not suceed in finding their common interests to be best served by the provision of a joint hospital, both of the authorities may now be regarded as pledged to make a sanitary hospital of their own. Two hospitals instead of one will, if both be efficient for the treatment and classification of the infectious diseases to be received into them, of course be more costly, both in construction and maintenance, than one hospital would be. The nature of the separate hospital provision, however, might be different from that which would be suitable for the two districts if provided for by a single institution. While in the urban district a fully developed hospital (if I may use the term) would still be wanted, in rural district some system of cottage hospitals might be appropriate.

TABLE XIV.—Shewing Cost of Hospitals for Infectious Diseases.

TOWN.	Population 1871.	No. of Hospitals.	No. of Beds.	Whether Pauper Patients are received.	Total Cost of Hospital.	Cost of Building per Bed.*	No. of Permanent Nurses	Average Cost per Patient.	OBSERVATIONS.
					£ s. d.	£ s. d.		£ s. d.	
RUGBY	25,048	1	32	Yes	2449 0 0	64 14 0	..	.....	Hospital of Wood.
GLASGOW	477,156	3	620	Yes, on Payment, all other eitizens free.	53632 0 0	77 10 0	..	3 0 0	Two old Hospitals : one new.
LONDON (Islington)....	.....	..	..	.....	.....	....	..	6 10 0	
NOTTINGHAM.....	92,000	1	80	Yes, on payment....	3639 0 0	45 10 0	2	.....	Hospital built of wood on briek foundations.
NEWCASTLE-ON-TYNE ..	137,655	1	60	Yes, on payment....	.....	....	2	.....	Old Building. Corporation about to build new one, containing 110 beds. Total eost during last two years of maintaining Hospital £1400; during that time there had been no epidemie.
BRADFORD	168,305	1	63	No	22000 0 0	349 4 0*	20 persons on staff ..	14 16 0	Built in 1872, on most approved prineiples. Site, six acres of land.
LEEK	11,604	1	14	.....	404 0 0	28 17 0	1	4 13 6	Wooden Hospital. Average eost per patient, after dedueting repayments.
DARLINGTON.....	35,000	1	44	Yes, on payment, £1 1s. per week..	10622 6 0	241 8 0*	3	.....	Brick Building, on most approved prineiples. Total eost last year £965 7s. 5d:
HASTINGS	30,000	1	14	.....	1600 0 0	92 17 0	1	.....	Villa converted into Hospital.
CHELTENHAM	43,000	1	52	No	9800 0 0	165 0 0	..	.....	New Building, most approved principles ; large administrative department to admit of ready extension.
BRISTOL.....	196,000	1	40	No	1200 0 0	24 0 0	4	.....	Site, Corporation property; built of Pitch Pine ; satisfactory.
EVERTON (Liverpool)..	493,405	..	100	.....	13740 0 0	137 8 0*	6	.....	Mansion eonverted in Hospital
SUNDERLAND.....	100,000	1	40	No	2000 0 0	50 0 0	..	.....	
TAUNTON	35,000	1	24	.....	3400 0 0	100 0 0	..	.....	Now being built. Briek on most approved prineiples.
TUNBRIDGE WELLS	19,400	1	8	.....	490 0 0 & ground rent.	61 17 6	2	.....	Total eost last year £174 8s. 7d.

* Where an asterisk is placed against the figures in this eolumn, the cost per bed including *all expenses* is shown ; when there is no asterisk the figures represent the cost of *building* only.